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An Extract
Of a Letter of M. Pecquet to M. Car-
cavi, concerning a New Discovery of the
Communication of the Ductus Thoracicus
with the Emulgent Vein: Taken out of the
Journal des Scavans, N. VII. 1667.

I Cannot forbear longer to inform you of the Experiments, which M. Perrault, M. Gayant, and I, made last Night upon the Corps of a Woman, that died some few dayes after she was brought to bed.

Our Design was, to continue the Discovery of the Vessels, that carry the Chyle to the Breasts, of which I have indicated the Way, pag. 134. of the *Second Edition* of my *Anatom. Experiments*, printed 1654. But the Body being not fit for that, we referred the search thereof to another time; and we have had the good fortune to make another Discovery, which may prove not less useful to *Physick*; it is the *Communication of the Milky Channel*, now call'd the *Ductus Thoracicus, with the Emulgent Vein*. The Experiments were these:

I M. Gayant having discovered the *Ductus Thoracicus* upon the 7th and 8th of the *Vertebra's* descending from the Back, inserted a Quill into the said *Ductus*, and having tied it upon the Quill, he did blow into it: whereupon the *Ductus* was fill'd with wind from the Quill unto the *Subclavial Vein*. This wind issued at the *Ascending Cava*, which had been cut, when he, whose the Corps was, had lifted up the heart to make the demonstration of it; M. Gayant would tie this *Cava*, but it was cut so short, that the Ligature could not hinder the wind to issue out of it; which was the cause, that it could not be thrust as far as the Breasts. I would supply this defect, by compressing with my finger that place of the Vein, at which the wind came out (which was at about the third *Vertebra*, descending from the Back) and M. Gayant having
blown

blown afresh into it, I compressed with my fingers the *Vena Cava* and the *Ductus Thoracicus* together ; but the wind , that was thrust into this Channel, shewed us, that it had another way to escape. And indeed we saw as often as we did blow , that the *Emulgent Vein* was on the left side filled with wind , and that thereupon the body of the *Vena Cava* also filled itself from the *Emulgent* unto the *Iliacues*. This wind seem'd to us to come from the *Left Kidney* , and to insinuate it self into the *Emulgent Vein* , and thence into the *Cava*. The *Right Kidney* had been removed , so that we could say nothing of its communication with the said *Ductus*: That shall be for another time.

The Question was made, Whether the wind, that seem'd to enter into the *Emulgent* , and the *Cava* , did there enter indeed, or, whether it did not slide, betwixt the proper coat of this Vein, and that common one , which comes to it from the *Peritoneum*? This Question did oblige us to slit the *Cava* at the place of the *Emulgent* ; and then blowing into the *Ductus Thoracicus* , we saw, that the wind, which had swelled the *Emulgent* , did escape at the opening, just now made in the *Cava*.

This Experiment made us judge, there was a communication of the *Ductus Thoracicus* with the *Left Kidney* , or at least with the *Emulgent Vein* , in the Body of this Woman. And to clear it the more, we made the following Experiment.

2. We lifted with the hand the Lungs , that filled the left Cavity of the *Thorax* , and having cleansed this Cavity with a Sponge , M. *Gayant* did blow into the *Ductus Thoracicus* , whilst I compressed the *Vein* and the *Ductus* with my fingers upon the third *Vertebra*, descending from the Back : And we saw the wind insinuate it self under the *Pleura* , by a trace , which raised it suddenly as often as we did blow. This trace appeared from the 4th *Vertebra* descending unto the *Diaphragme* , and made us conclude, that there was under the *Pleura* a Channel of Commerce coming from the *Ductus Thoracicus* , and passing to the *Emulgent Vein* by this Cavity of the *Thorax*. We could not doubt, but that this Channel, which passed under the *Pleura* , went as far as to the *Kidney* , because we saw, that the wind did get in on the side of the *Kidney* into the *Emulgent Vein* , and came out at the hole of the

the *Cava*, that had been made in the first Experiment. We perceived, that this Channel of Communication came from the *Ductus Thoracicus*, at the place of the fourth *Vertebra* of the Back. But to be the surer of it, we made the following Experiment.

3. I compressed with my fingers the *Ductus* upon the *fifth* descending *Vertebra* of the Back; and M. *Gayant* having blown into the Quill, which was upon the *seventh*, the wind passed not to the *Kidney*, nor to the *Emulgent Vein*. Which made us conclude, that the Communication was not beneath the *fifth Vertebra*. Then I compressed with my fingers the *Ductus Thoracicus* and the *Vena Cava* upon the *third* descending *Vertebra*; and the *Emulgent* swelled, when M. *Gayant* blew into the Quill: Which gave us more strongly to believe, That the place of the *Ductus Thoracicus*, whence goes the Channel of Commerce with the *Emulgent*, was between the third and fifth *Vertebra* of the Back, as the wind had informed us in the second Experiment.

To be yet more assured thereof, M. *Gayant* split the *Ductus Thoracicus* upon the *third Vertebra* of the Back, and having blown into it at the Quill, the wind came out at the *Axillary Vein*, and the *Ascending Cava*; but the *Emulgent* swelled not at all.

We made a *fourth* Experiment, which seemed very curious to us, and will not be misl to relate here; *viz.*

4. M. *Gayant* having blown into the *Aorta*, whereof all the branches, that had been cut, were tied up, it swelled immediately, and the *Emulgent Artery* grew tumid at the same time: but the wind, that was protruded thorow the *Emulgent Artery* into the *Left Kidney*, returned not into the *Emulgent Vein*; which taught us, that the *Blood* often passeth, where the *Air* does not.

We have an evident proof of it in the *Kidney*, since that the *Blood* of the *Emulgent Artery*, which goes to the *Kidney*, returns thorow the *Emulgent Vein* into the *Vena Cava*, pursuant to the Rules of the Circulation of the *Blood*; and that the *Air* propelled thorow the *Emulgent Artery* into the *Kidney*, comes not back thorow the *Emulgent Vein* into the *Vena Cava*.

We

We have yet another proof thereof in the *Lungs*, from the Experiment, we made of it in the Assembly upon the Corps of a Woman, that was there dissected in the beginning of *February* last; where we saw, that the *Air*, which was propelled thorow a Quill into the *Vena Arteriosa* (which is the *Artery* of the *Lungs*) returned not thorow the *Arteria Venosa* (which is the *Vein* thereof) into the *Left Ventricle* of the *Heart*; though, by the Circulation, the *Blood* pass there with ease; and even *Milk*, which having been let in by this *Vena Arteriosa*, returned easily thorow the *Arteria Venosa*, into the *Left Ventricle* of the *Heart*.

I draw no consequence from these Trials, as to the Channel of Communication; that passes from the *Ductus Thoracicus* into the *Emulgent Vein*; because one ought to infer nothing from one only Body. When we shall be certain, that this *Channel of Commerce* is found in *Men*, as well, as we have found it in this *Woman*, we shall then judge better of it. We are therefore going to make frequent Operations upon divers *Animals*, to see whether we shall there meet with any thing like it, to the end we may impart it to the Publick.

A Description Of several Kinds of Granaries, as those of London, of Dantzick, and in Muscovy.

*Concerning the Granaries of London, the Inquisitive Dr. Merret,
(who indeed occasion'd the Inquiry into the rest, as a thing,
which many were desirous to be informed about, for the better
Preservation of Grain, in times of its Plenty) gives this Account
of them.*

ALL the Twelve Companies of *London*, and some other Companies and Private Persons, have their Granaries at the Bridge-House in *Southwark* (where are a Justice of the Peace, a Steward, and two Masters.) These Granaries are built on two sides of an *Oblong*; one whereof stands *North* and *South*, and is near 100 yards long, whose Lettice-windows respect *North-East*, the other side may be about 50 yards long; the Windows look to the
North,